Oil and Gas Extraction Effluent Guidelines: Coastal Subcategory (Cook Inlet, Alaska)

Overview

- Oil production in Cook Inlet peaked several decades ago and is now declining as most of the oil resources are now extracted. Natural gas exploration and production is also now on the decline.

- This means that fewer and fewer wells each year are being drilled and less drill cuttings are being treated and discharged. However, as is common with mature oil fields, operators are pumping and processing more water than oil in Cook Inlet. Consequently, the volume of produced water being discharged in Cook Inlet is trending upwards.

- Most of the 16 platforms in Cook Inlet were constructed from 1964 to 1968. The most recently constructed platform (Osprey) began operation in 2000 and does not discharge pollutants.

- Water movement in Cook Inlet is dominated by the tidal cycle and strongly influenced by the freshwater inputs from rivers and precipitation. The platforms are constructed in water depths that range from 46 to 184 feet.

Coastal Effluent Guidelines Rulemaking

- EPA promulgated effluent guidelines for the Coastal subcategory (Subpart D) on 16 December 1996 (61 FR 66086). With one exception EPA's Coastal ELGs ban the discharge of drilling fluid, cuttings, produced water, deck drainage, produced sand, and other miscellaneous oil field wastes.

- In the final 1996 rule EPA allowed coastal operators in Cook Inlet, Alaska, to discharge and set the limits for coastal Cook Inlet equal to the Offshore subcategory for produced water and aqueous drilling fluids and cuttings.

- EPA did not identify injection of drill cuttings and produced water as the basis for BAT limitations or NSPS due to:

    - Uncertainties regarding the availability of geologic formations suitable for injection;

    - Limited availability to onshore disposal for drilling wastes; and

    - Potential economic impacts (EPA's economic analyses predicted that 1 platform would close and 2 additional platforms would suffer severe economic impacts under the zero discharge option).

2004 Effluent Guidelines Review

- Several Cook Inlet native villages and Cook Inlet Keeper submitted comments on the preliminary 2004 Plan asking for EPA to revise the Coastal ELGs and ban the discharge of produced waters and aqueous drill fluids and cuttings.

- EPA conducted several analyses to response to these comments and ultimately did not initiate an effluent guidelines rulemaking:

    - <u>Relatively Low Hazard (Factor 1)</u>: Pollutant discharges from the 16 platforms and their related shore-based facilities are approximately 13,000 toxic-weighted pound equivalents.

- Available Technology (Factor 2): Newer injection technology might also make injection of produced water and drilling fluids and cuttings more available. However, EPA does not know how widely these newer technologies can be used across all Cook Inlet facilities (due to site specific differences in geologic formations).

- Economic Achievability (Factor 3): EPA also identified that production at the 1960's platforms was declining at the time of the 1996 rule and has continued its production decline. That is, in 2004 EPA identified that all Cook Inlet facilities could be considered as marginal (less able to afford any new costs associated with achieving zero discharge) and that only a few wells are drilled each year.

- Region 10 is the current permitting authority for Cook Inlet and has periodically requested that OST revisit the Coastal ELGs since 2004.

Recent Litigation on Region 10's General Permit

- In 2007 Trustees for Alaska, on behalf of Cook Inletkeeper, two Native villages, and two fishermen's groups, sought review in the U.S. Court of Appeals for the Ninth Circuit of EPA Region 10's NPDES General Permit for oil and gas discharges in Cook Inlet (Cook Inletkeeper v. EPA, 9th Cir., No. 07-420, 6/15/07). EPA published the final General Permit on May 31, 2007 (72 FR 30377).

- Trustees for Alaska argue that operators should inject produced water and other contaminants back down into the reservoir, a "zero discharge" practice done by companies on the North Slope as well as on a newer Cook Inlet platform (Osprey). The operators of older platforms argue that it would be too costly to revamp the aged facilities to do the underground injection of wastes, and that a requirement to do so by the government would make platform operations uneconomic.

- Trustees is arguing that the new General Permit will allow greater amounts of pollution than the previous discharge permit, and that at current high oil prices the companies can afford to retrofit the platforms and install the equipment to do underground injection.

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